

Amendments To The Claims:

This listing of claims will replace all prior versions and listings of claims in this application:

Listing of Claims:

1. (Currently Amended) A method of monitoring compliance with a service level agreement, comprising:

associating a plurality of service level objectives with a resource in a corresponding information technology infrastructure, each service level objective associated with a corresponding service level agreement;

determining a first value for a ~~predetermined~~ each service level objective, ~~objective included in a service level agreement~~, wherein:

the service level objective specifies at least one measurable criterion against which the performance of ~~an associated~~ the resource ~~in a corresponding information technology infrastructure~~ is compared to determine if each criterion is met, and

the first value corresponds to a value associated ~~with threshold~~ with a threshold for failure to meet the associated service level objective;

determining a second value for ~~the predetermined~~ each service level objective, wherein:

the second value corresponds to an early warning threshold value and is determined so as to be detected before based upon the associated first value for that service level objective;

monitoring the resource by electronically obtaining service level agreement information for the resource that relates to each ~~the associated~~ service level objective;

evaluating the obtained service level agreement information to determine if the ~~second value~~ early warning threshold value associated with any one of the service level objectives has been breached for the resource; ~~[[and]]~~

automatically determining a critical service level objective from the plurality of service level objectives as being the service level objective that the resource is closest to

failing to comply with and determining for that critical service level objective, a measure of how close the resource is to non-compliance based upon the associated threshold for failure to meet the associated service level objective value of the critical service level objective, if at least one of the early warning threshold values has been breached; and

generating an early warning notification indicating that failure to meet a service level objective ~~may occur of the~~ if at least one of the early warning threshold values has been breached ~~service level agreement by a resource is about to occur if a determination is made that the second value has been breached.~~, wherein the early warning notification identifies at least the critical service level objective and conveys the measure of how close the resource is to non-compliance of the critical service level objective.

2. (Canceled)

3. (Currently Amended) The method of claim 1, wherein at least one ~~[[the]]~~ service level objective comprises an availability service level objective.

4. (Currently Amended) The method of claim 3, wherein:

evaluating the obtained service level agreement information ~~to determine if the second value has been breached for the resource~~ comprises determining if the resource is within a predefined threshold value of failing an availability requirement of ~~[[the]]~~ a selected service level objective ~~of the plurality of service level objectives~~; and

generating an early warning notification if the resource is within the predefined threshold value of failing to comply with the availability requirement of the selected service level objective.

5. (Currently Amended) The method of claim 4, further comprising:

determining an amount of unavailability before the resource fails to comply with the availability requirement of the selected service level objective; and

wherein the early warning notification conveys the measure of how close the resource is to non-compliance of the critical service level objective~~generating an early warning notification if the resource is within the predefined threshold value of failing the availability requirement of the service level objective~~ further comprises generating a notification that includes the determined amount of unavailability.

6. (Canceled)

7. (Currently Amended) The method of ~~claim 6~~, claim 1, further comprising only generating the early warning notification for the critical service level objective.

8. (Currently Amended) The method of ~~claim 6~~, claim 1, further comprising:

determining if the resource fails to comply with the availability requirement of the critical service level objective;

determining a next service level objective of the plurality of service level objectives with which the resource is closest to failing to comply so as to identify a subsequent critical service level objective; and

generating an early warning notification for the subsequent critical service level objective.

9. (Currently Amended) The method of ~~claim 6~~, claim 1, further comprising:

determining an amount of unavailability before the resource fails to comply with the availability requirement of the critical service level objective; and

wherein generating an early warning notification further comprises generating a notification that includes the determined amount of unavailability.

10. (Original) The method of claim 1, wherein generating an early warning notification comprises sending a message to a console, generating an e-mail message, setting a simple

network management protocol trap and/or updating a database and generating a report from the updated database.

11. (Canceled)

12. (Currently Amended) The method of ~~claim 1~~, claim 23, wherein generating an early warning notification if the accumulated down time of the resource exceeds the early warning threshold comprises generating a notification that includes a remaining time before the accumulated down time of the resource exceeds the maximum down time.

13. (Original) The method of claim 12, wherein monitoring accumulated down time comprises:

receiving notification that the resource is down; and  
incrementing the accumulated down time while the resource is down.

14. (Original) The method of claim 12, wherein monitoring accumulated down time comprises periodically polling a resource to determine the accumulated down time of the resource.

15. (Original) The method of claim 12, wherein monitoring accumulated down time comprises polling a resource information data source to determine the accumulated down time of the resource.

16. (Currently Amended) The method of ~~claim 11~~, claim 23, wherein determining a maximum down time (MADT) for a resource to comply with the service level agreement and determining an early warning threshold (ewdt) based on the maximum down time are repeated for ~~[[a]]~~ each of the plurality of service level agreements;

wherein determining if the accumulated down time for the resource exceeds the early warning threshold comprises determining if the accumulated down time for the resource

exceeds a minimum early warning threshold of the early warning thresholds for the plurality of service level agreements; and

wherein generating an early warning notification if the accumulated down time of the resource exceeds the early warning threshold comprises generating an early warning notification if the accumulated down time of the resource exceeds the minimum early warning threshold.

17. (Canceled)

18. (Previously Presented) The system of claim 24, wherein the early warning notification includes an indication of how close the resource is to failing to meet the service level objective.

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Previously Presented) The method according to claim 1, wherein:

determining a first value for a predetermined service level objective included in a service level agreement comprises:

determining a maximum down time (MADT) for a resource to comply with the service level agreement;

determining a second value for the predetermined service level objective comprises:

determining an early warning threshold (ewdt) based on the maximum down time;

monitoring the resource by electronically obtaining service level agreement information for the resource that relates to the associated service level objective comprises:

monitoring accumulated down time (A) for the resource since a beginning of a compliance period associated with the service level agreement; evaluating the obtained service level agreement information comprises:

determining if the accumulated down time for the resource exceeds the early warning threshold; and

generating an early warning notification comprises:

generating an early warning notification if the accumulated down time of the resource exceeds the early warning threshold.

24. (Currently Amended) A system to monitor compliance with a service level agreement, comprising:

a central data warehouse;

at least one service level agreement information source that provides service level agreement information to the central data warehouse;

a datamart that stores service level agreement information that has been loaded therein from the central data warehouse; and

an evaluator that extracts service level information from the datamart and evaluates the extracted service level information to determine if an early warning notification for a service level of objective of the service level agreement is appropriate, wherein the early warning notification is determined based upon:

an association of a plurality of service level objectives with a resource in a corresponding information technology infrastructure, each service level objective associated with a corresponding service level agreement;

a first value for ~~the~~ each service level objective, where the service level objective specifies at least one measurable criterion against which the performance of an associated resource in a corresponding information technology infrastructure is compared to determine if each criterion is met, and

the first value corresponds to a value associated ~~with threshold~~ with a threshold for failure to meet the associated service level objective;

a second value for ~~the predetermined~~ each service level objective, wherein the second value corresponds to an early warning threshold value and is determined so as to be detected before based upon the associated first value for that service level objective; and

an evaluation of the obtained service level agreement information to determine if the second value has been breached for the ~~resource~~, resource; and

an automated determination of a critical service level objective from the plurality of service level objectives as being the service level objective that the resource is closest to failing to comply with and determining for that critical service level objective, a measure of how close the resource is to non-compliance based upon the associated threshold for failure to meet the associated service level objective value of the critical service level objective, if at least one of the early warning threshold values has been breached;

wherein the early warning notification identifies at least the critical service level objective and conveys the measure of how close the resource is to non-compliance of the critical service level objective.

25. (Previously Presented) The system according to claim 24, further comprising a service level agreement early warning module configured to:

determine a maximum down time (MADT) for a resource to comply with the service level agreement;

determine an early warning threshold (ewdt) based on the maximum down time;

monitor accumulated down time (A) for the resource since a beginning of a compliance period associated with the service level agreement;

determine if the accumulated down time for the resource exceeds the early warning threshold; and

generate an early warning notification if the accumulated down time of the resource exceeds the early warning threshold.

26. (Currently Amended) A computer program product for monitoring compliance with a service level agreement, comprising:

a computer readable medium having computer readable program code embodied therein, the computer readable program code comprising:

computer usable program code configured to associate a plurality of service level objectives with a resource in a corresponding information technology infrastructure, each service level objective associated with a corresponding service level agreement;

computer usable program code configured to determine a first value for a ~~predetermined~~ each service level objective included in a service level agreement, where the service level objective specifies at least one measurable criterion against which the performance of an associated resource in a corresponding information technology infrastructure is compared to determine if each criterion is met, and the first value corresponds to a value associated ~~with threshold~~ with a threshold for failure to meet the associated service level objective;

computer usable program code configured to determine a second value for ~~the~~ ~~predetermined~~ each service level objective, wherein the second value corresponds to an early warning threshold value and is determined so as to be detected before ~~based upon~~ the associated first value for that service level objective;

computer usable program code configured to monitor the resource by obtaining service level agreement information for the resource that relates to ~~the~~ each associated service level objective;

computer usable program code configured to evaluate the obtained service level agreement information to determine if the ~~second value~~ early warning threshold value associated with any one of the service level objectives has been breached for the resource;  
[[and]]



computer usable program code configured to automatically determine a critical service level objective from the plurality of service level objectives as being the service level objective that the resource is closest to failing to comply with and determining for that critical service level objective, a measure of how close the resource is to non-compliance based upon the associated threshold for failure to meet the associated service level objective value of the critical service level objective, if at least one of the early warning threshold values has been breached; and

computer usable program code configured to generate an early warning notification indicating that failure to meet a service level objective may occur ~~of the~~ if at least one of the early warning threshold values has been breached ~~service level agreement by a resource is about to occur if a determination is made that the second value has been breached.~~, wherein the early warning notification identifies at least the critical service level objective and conveys the measure of how close the resource is to non-compliance of the critical service level objective.

27. (Previously Presented) The computer program product according to claim 26, wherein:

computer usable program code configured to determine a first value for a predetermined service level objective comprises computer readable program code configured to determine a maximum down time (MADT) for a resource to comply with the service level agreement;

computer usable program code configured to determine a second value for the predetermined service level objective comprises computer readable program code configured to determine an early warning threshold (ewdt) based on the maximum down time;

computer usable program code configured to monitor the resource comprises computer readable program code configured to monitor accumulated down time (A) for the resource since a beginning of a compliance period associated with the service level agreement;

computer usable program code configured to monitor the resource by obtaining service level agreement information for the resource comprises computer readable program code configured to determine if the accumulated down time for the resource exceeds the early warning threshold; and

computer usable program code configured to generate an early warning notification indicating that failure to meet a service level objective of the service level agreement comprises computer readable program code configured to generate an early warning notification if the accumulated down time of the resource exceeds the early warning threshold.